



UNIVERSITI PUTRA MALAYSIA

**A COMPARISON BETWEEN VISUAL IMAGERY STRATEGY AND
CONVENTIONAL STRATEGY IN THE TEACHING OF ENGLISH FOR
SCIENCE**

NOOREEN BT. NOORDIN.

FPP 2004 13

**A COMPARISON BETWEEN VISUAL IMAGERY STRATEGY AND
CONVENTIONAL STRATEGY IN THE TEACHING OF
ENGLISH FOR SCIENCE**

By

NOOREEN BT. NOORDIN

**Thesis Submitted to the School of Graduate Studies, Universiti Putra
Malaysia in Fulfilment of the Requirements for the Degree of
Doctor of Philosophy**

March 2004



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in
fulfilment of the requirement for the degree of Doctor of Philosophy

**A COMPARISON BETWEEN VISUAL IMAGERY STRATEGY AND
CONVENTIONAL STRATEGY IN THE TEACHING OF
ENGLISH FOR SCIENCE**

By

NOOREEN BT. NOORDIN

March 2004

Chairman: Professor Hjh. Habibah bt. Elias, Ph.D.

Faculty: Educational Studies

The main purpose of the study was to investigate and compare the effectiveness between visual imagery strategy and conventional strategy in the teaching of English for Science and Technology. A total of 89 students ($n=89$) were assigned to two groups, where each group underwent three phases of the experiment – 1) Pre-test Phase, 2) Treatment Phase, and 3) Post-test Phase. In this study, visual imagery strategy was a teaching procedure that incorporated the use of visuals and the forming of images that suggested the kind of representations students need to conjure within the context of the topic being taught. Conventional strategy was the teaching method prescribed by the English teacher in which students' attention were directed to important facts and concepts pertaining to the topic. Evaluation to ascertain students' learning achievement was based on their pre-test and post-test scores obtained as participants performed the Language Achievement test, which included

evaluation on reading comprehension and writing skills. Analysis was also done on their language functions, vocabulary tasks, reading comprehension, and essay writing skills from the science- and technical-based lessons taught to the students. The results of the study was reported in accordance with the hypotheses developed which compared the effectiveness between visual imagery strategy and conventional strategy on dependent variables such as reading comprehension achievement, writing skills and vocabulary achievement, as well comparing the effectiveness between the two strategies used among low English proficiency and high English proficiency students.

Data analysis indicated that visual imagery strategy produced significant main effect on students' total reading comprehension and writing achievement, as compared to conventional strategy ($F(1,84) = 17.55, p < .000$), but there was no significant interaction effect between proficiency level and type of treatment applied ($F(1,84) = .895, p > .347$, with a very small effect size (eta squared = .011). Based on reading comprehension scores alone, it was found that visual imagery strategy produced significant main effect on students' reading comprehension achievement, as compared to conventional strategy ($F(1,84) = 14.03, p < .000$; eta squared = .143), but again, there was no significant interaction effect between proficiency level and type of treatment applied ($F(1,84) = .002, p > .620$; eta squared = .010). Based on writing scores alone, it was found that visual imagery did not produce significant main effect on

students' writing achievement as compared to conventional strategy ($F(1,84) = 1.27, p = .261$). However, there was significant interaction effect between proficiency level and the treatments applied in determining students' writing achievement ($F(1,84) = 1.06, p < .041$, with a small effect size (eta squared = .012). Data analysis also indicated that visual imagery strategy ($M=9.93, SD=2.98$) did not produce significant differential effect on students' vocabulary skills performance during the treatment phase, as compared to the conventional strategy: ($M=9.37, SD=3.51; t(87)=.802, p=.425$).

Students' responses regarding their knowledge and perception of visual imagery strategy and its application on teaching reading comprehension and writing skills in English for Science and Technology also favored the use of visuals and imagery instructions. Lastly, it was found that students agree that visual imagery strategy should be incorporated in English for Science and Technical lessons as it helped students understand scientific and technical passages better during reading-instruction. The implication of the study suggests that visual imagery strategy can be beneficial for students learning English for Science and Technology as the strategy promoted the recall of previous knowledge and provided interaction with the content. Visual imagery strategy as a teaching method should be utilized to its full potential, as it can be beneficial in facilitating the teaching and learning of English for science and technical reading comprehension and other language skills.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**PERBANDINGAN DI ANTARA STRATEGI IMAGERI VISUAL DAN STRATEGI
KONVENSIONAL DALAM PENGAJARAN
BAHASA INGGERIS UNTUK SAINS**

Oleh

NOOREEN BT. NOORDIN

Jun 2004

Pengerusi: Profesor Hjh. Habibah binti Elias, Ph.D.

Fakulti: Pengajian Pendidikan

Tujuan utama kajian ini adalah untuk menyiasat dan membuat perbandingan keberkesanan di antara strategi imageri visual dan strategi konvensional dalam pengajaran Bahasa Inggeris untuk Sains dan Teknologi. Sejumlah 89 orang pelajar ($n=89$) telah dibahagikan kepada dua kumpulan di mana setiap kumpulan telah menjalani eksperimen yang terdiri dari tiga fasa – 1) Fasa Ujian-Pra, 2) Fasa Rawatan, dan 3) Fasa Ujian-Pos. Dalam kajian ini, strategi imageri visual merupakan prosedur pengajaran yang menggabungkan penggunaan visual dan pembentukan imej yang menjurus kepada representasi minda oleh pelajar di dalam konteks pengajaran topik. Strategi konvensional merupakan kaedah pengajaran yang ditetapkan oleh guru Bahasa Inggeris di mana tumpuan pelajar diarahkan kepada fakta serta konsep yang berkaitan dengan topik. Penilaian pencapaian pembelajaran pelajar adalah berdasarkan kepada ujian Pencapaian Bahasa, yang mengandungi penilaian kefahaman dan

kemahiran menulis. Analisis juga dilakukan dalam kemahiran fungsi bahasa, tugas kosa kata, kefahaman, dan penulisan esei berdasarkan pengajaran berasaskan sains dan teknikal kepada pelajar. Dapatan kajian dilaporkan bersesuaian dengan hipotesis-hipotesis yang dibina untuk membandingkan keberkesanan diantara strategi imageri visual dan strategi konvensional terhadap pembolehubah bersandar seperti pencapaian kemahiran kefahaman, penulisan esei dan kosa kata. Disamping itu, perbandingan juga dilakukan diantara kedua-dua strategi yang digunakan terhadap para pelajar yang mempunyai kemahiran Bahasa Inggeris yang lemah dan pelajar yang mempunyai kemahiran Bahasa Inggeris yang baik.

Analisis data menunjukkan strategi imageri visual menghasilkan kesan utama yang signifikan terhadap pencapaian total kefahaman dan penulisan pelajar, berbanding dengan strategi konvensional ($F(1,84) = 17.55, p < .000$). Namun, tidak terdapat kesan interaksi yang signifikan diantara tahap kemahiran dan jenis rawatan yang diaplikasikan ($F(1,84) = .895, p > .347$, saiz kesan yang kecil (kuasadua eta = .011). Berdasarkan skor kefahaman sahaja, didapati strategi imageri visual menghasilkan kesan utama yang signifikan terhadap pencapaian kefahaman pelajar, berbanding dengan strategi konvensional ($F(1,84) = 14.03, p < .000$; kuasadua eta = .143), namun begitu, tidak terdapat kesan interaksi yang signifikan diantara tahap kemahiran dan jenis rawatan yang diaplikasikan ($F(1,84) = .002, p > .620$; kuasadua eta = .010). Berdasarkan skor penulisan sahaja, didapati strategi imageri visual tidak menghasilkan kesan utama yang signifikan terhadap pencapaian penulisan pelajar, berbanding dengan strategi

konvensional ($F(1,84) = 1.27$, $p = .261$). Namun begitu, terdapat kesan interaksi yang signifikan diantara tahap kemahiran dan rawatan yang diaplikasikan dalam menentukan pecapaian penulisan pelajar ($F(1,84) = 1.06$, $p < .041$, saiz kesan yang kecil (kuasa dua eta = .012). Analisis data juga menunjukkan strategi imageri visual ($M=9.93$, $SD=2.98$) tidak menghasilkan kesan perbezaan yang signifikan terhadap prasi kemahiran kosa kata semasa fasa rawatan, berbanding dengan strategi konvensional: ($M=9.37$, $SD=3.51$; $t(87)=.802$, $p=.425$).

Respons pelajar mengenai pengetahuan dan persepsi terhadap strategi imageri visual dan aplikasinya di dalam pengajaran kemahiran kefahaman dan penulisan dalam Bahasa Inggeris untuk Sains dan Teknologi juga memihak kepada penggunaan arahan imageri dan visual. Akhir sekali, didapati pelajar bersetuju bahawa strategi imageri visual perlu dimasukkan dalam pengajaran Bahasa Inggeris untuk Sains dan Teknologi memandangkan ia membantu pelajar memahami petikan sains dan teknikal dengan lebih baik semasa pengajaran-bacaan. Implikasi kajian ini mencadangkan strategi imageri visual boleh memberi faedah di dalam pembelajaran Bahasa Inggeris untuk Sains dan Teknologi memandangkan strategi ini menggalakkan ingatan kembali pengetahuan lepas dan interaksi dengan kandungan. Strategi imageri visual sebagai kaedah pengajaran perlu digunakan sepenuhnya memandangkan ia boleh memberi manfaat dengan mempermudah pengajaran dan pembelajaran kemahiran kefahaman dan kemahiran bahasa Inggeris untuk sains dan teknologi yang lain.

ACKNOWLEDGEMENTS

BISMILLAHIRRAHMANIRRAHIM

In the name of Allah, most Gracious, most Merciful. Writing is a solitary undertaking. Converting a writer's words into a finished thesis, however, requires the efforts of many people. Directly and indirectly, many people have contributed to the preparation of this final product. Hence, the writer would like to express her deep gratitude and sincere appreciation to the following people without whom this thesis would not have been possible.

First of all, the writer wishes to extend her deep and heartfelt gratitude especially to Professor Dr. Hj. Habibah Elias, the Chairperson of the Supervisory Committee for the invaluable advice and assistance that she has rendered. Without her support and encouragement, none of this would have been possible. A special word of thanks to Associate Professor Dr. Rahil Haji Mahyuddin, for providing the writer with good suggestions, and words of encouragement throughout the research writing process. The writer also owe a great many thanks to Dr. Rohani Ahmad Tarmizi for her cooperation, advice, and support throughout the research process which helped mould the thesis into its final form. Many thanks and appreciations are also due to Dr. Arshad Abdul Samad, whose extensive advice, counsel, and willingness to read and comments given during the writing process will never be forgotten.

The writer would also like to express her sincere thanks to the principals, administrators, teachers and students from various schools in Selangor who participated in the experiment. Without the full participation and support from these schools, this study would not have been a reality as the performance and responses given provided the raw material for the writer's final product.

Sincere thanks should be expressed to the Ministry of Education (Educational Planning and Research Department), the Selangor State Department of Education, the staff of the Faculty of Educational Studies, and the Graduate School Office of Universiti Putra Malaysia for granting the writer permission to pursue the course of this study. My personal thanks to all my friends, as well as colleagues for their advice, encouragement, and assistance throughout the thesis-writing process. To my parents, parents-in-law, brother, and sister – I am deeply indebted, for without their support, encouragement, patience, prayers, and love throughout the duration of this course; this would not have been possible. To my son Luqman – when you came into my life, I never looked back - you are my constant source of inspiration.

Finally, to my husband Azman Zainuddin, for his unflagging support during the highs and lows that inevitably accompany the preparation of a thesis of this magnitude. Thank you for your love, patience, encouragement, and tolerance towards me while I worked on this piece. I express my gratitude and indebtedness to my loving husband by dedicating this thesis to him.



I certify that an Examination Committee met on 31st March 2004 to conduct the final examination of Nooreen binti Noordin on her Doctor of Philosophy thesis entitled "A Comparison Between Visual Imagery Strategy and Conventional Strategy in the Teaching of English for Science" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

Ab. Rahim Bakar, Ph.D.

Associate Professor
Faculty of Educational Studies
Universiti Putra Malaysia
(Chairman)

Fauziah Hassan, Ph.D.

Faculty of Educational Studies
Universiti Putra Malaysia
(Member)

Mohd. Khairi Zawi, Ph.D.

Faculty of Educational Studies
Universiti Putra Malaysia
(Member)

Nor Mawati Mohd. Shariff, Ph.D.

Associate Professor
Modern Languages Department
UTM City Campus
Jalan Semarak
Kuala Lumpur
(Independent Examiner)



MAD NASIR SHAMSUDIN, Ph.D.

Professor/Deputy Dean
School of Graduate Studies
Universiti Putra Malaysia

Date: 29 JUN 2004

This thesis submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirements for the degree of Doctor of Philosophy. The members of the Supervisory Committee are as follows:

Habibah Elias, Ph.D.

Professor
Faculty of Educational Studies
Universiti Putra Malaysia
(Chairman)

Rahil Haji Mahyuddin, Ph.D.

Associate Professor
Faculty of Educational Studies
Universiti Putra Malaysia
(Member)

Rohani Ahmad Tarmizi, Ph.D.

Associate Professor
Faculty of Educational Studies
Universiti Putra Malaysia
(Member)

Arshad Abdul Samad, Ph.D

Faculty of Educational Studies
Universiti Putra Malaysia
(Member)



AINI IDERIS, Ph.D.

Professor/Dean
School of Graduate Studies
Universiti Putra Malaysia

Date: 09 JUL 2004

DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.



NOOREEN BINTI NOORDIN

Date: **1 JULY 2004**

TABLE OF CONTENTS

	Page
ABSTRACT	ii
ABSTRAK	v
ACKNOWLEDGEMENTS	viii
APPROVAL	x
DECLARATION	xii
LIST OF TABLES	xviii
LIST OF FIGURES	xx

CHAPTER

I	INTRODUCTION	1
1.1	Background of the Study	1
1.1.1	The History of ESP	2
1.1.2	Teaching Approaches in English for Science and Technology	7
1.2	The Rationale for Content-Based Language Teaching	13
1.3	Implementation of Teaching Strategies for Language and Science	16
1.4	Brief Review of Theoretical Concepts	23
1.4.1	Dunkin and Biddle's (1974) Model for the Study of Classroom Teaching.	23
1.4.2	Paivio and Beggs (1981) Dual-Coding Theory on Language	23
1.4.3	Bartlett's (1932) Schema Theory	24
1.5	Statement of the Problem	26
1.6	Objectives of the Study	33
1.7	Hypotheses of the Study	35
1.8	Rationale of the Study	37
1.9	Significance of the Study	39
1.10	Scope and Limitations of the Study	44
1.11	Operational Definitions	45
1.11.1	Visual Imagery Teaching Strategy	45
1.11.2	Conventional Teaching Strategy	46
1.11.3	English for Science and Technology Language Achievement	47



1.11.3.1	Reading-Comprehension Achievement	47
1.11.3.2	Writing Achievement	48
1.11.4	Upper Secondary School Students	48
1.11.5	High English Proficiency Students	50
1.11.6	Low English Proficiency Students	50
II	LITERATURE REVIEW	51
2.1	Introduction	51
2.2	Reading Theories	52
2.3	Schema Theory	54
2.4	Writing Theories	56
2.5	Reading and Writing: Connection between Paivio and Begg's (1981) Dual-Coding Theory and Bartlett's (1932) Schema Theory	59
2.6	Dunkin and Biddle's (1974) Model of Classroom Teaching	63
2.7	Studies on the use of Visuals and Imagery in Teaching English for Science and Technology for ESL	65
2.8	Studies on the teaching approaches in Reading and Writing skills	93
2.9	Conceptual Framework of the Study: The Association between Paivio and Begg's (1981) Dual-Coding Theory, Bartlett's (1932) Schema Theory and Dunkin and Biddle's (1974) Model of Classroom Teaching	102
2.10	Conclusion	109
III	METHODOLOGY	110
3.1	Introduction	110
3.2	Research Design	110
3.3	Population of the Study	114
3.4	Determination of Sample Size	115
3.5	Instrumentation	119
3.6	English for Science and Technology Language Achievement	119
3.6.1	Rationale for Format of the Language Achievement Assessment Questions	122
3.7	English for Science and Technology Lesson: Reading comprehension, Writing, and Vocabulary Assessment	126
3.8	Procedure	131

3.9	Duration of the Study	134
3.10	Pre-test Stage	135
3.11	Treatment Stage	137
3.12	Visual Imagery Teaching Strategy	139
3.12.1	Lesson One: Energy: The Science of Roller Coasters	142
3.12.2	Lesson Two: Reading for Science and Technology	144
3.12.3	Lesson Three: Writing for a Specific Purpose	146
3.13	Conventional Teaching Strategy Group	149
3.14	Post-test Stage	149
3.15	Validity of Instruments	150
3.16	Data Analysis	151
3.17	Pilot Study	152
3.18	Procedure	153
3.19	Pre-test Stage	154
3.20	Treatment Stage	155
3.20.1	Visual Imagery Teaching Strategy	156
3.20.2	Conventional Teaching Strategy Group	157
3.20.3	Post-test Stage	158
3.21	Findings from the Pilot Study	158
3.22	Problems Encountered During The Experiment and Suggestions	164
3.23	Discussion	166
3.24	Conclusion	170
3.25	Reliability of Instruments	171
IV	RESULTS	175
4.1	Introduction	175
4.2	Profile of Participants	176
4.3	Effects of Teaching Strategies and Proficiency Levels on the Language Achievement Assessment	178
4.4	Effects of Teaching Strategies and Proficiency Levels on the Reading Comprehension Achievement	187
4.5	Effects of Teaching Strategies and Proficiency Levels on the Writing Achievement	195
4.6	A Comparison between Visual Imagery and Conventional Strategies on the Reading Comprehension, Writing and Vocabulary Achievement: During Treatment Phase	202

4.7	Students' Level of Perception on Reading Comprehension and Writing Skills: Post-test Phase	212
4.7.1	Students' Responses to Questionnaire – Section B: Reading Comprehension and Writing Questionnaire	213
4.8	Students' Level of Perception Towards the Concept of Visual Imagery in the teaching of English for Science and Technology: Post-test Phase	216
4.8.1	Students' Responses to Questionnaire – Section C: Visual Imagery Strategy Questionnaire	217
4.9	Qualitative Analysis on Students' Writing Skills: During Treatment Phase	221
4.9.1	Inter-Rater Reliability for the Writing Skills Achievement	221
4.9.2	Evaluation Procedure	223
4.10	An Evaluation of the Students' Essay Writing Performance: Writing for a Specific Purpose	225
4.11	Summary of the Findings	236
V	DISCUSSION	239
5.1	Introduction	239
5.2	Main Findings of the Study: A Summary	239
5.3	A Discussion on the Effectiveness of Visual Imagery Strategy on Reading Comprehension, Writing and Vocabulary Skills	241
5.4	The Effects of Visual Imagery Strategy on Students' Writing Skills	276
5.5	A Support for the Effectiveness of Visual Imagery Strategy and the Materials Used	287
VI	CONCLUSION, IMPLICATIONS, AND RECOMMENDATIONS	293
6.1	Conclusion	293
6.2	Implications of the Study	294
6.3	Recommendations	300

BIBLIOGRAPHY	303
APPENDICES	317
BIODATA OF THE AUTHOR	517



LIST OF TABLES

Table	Page
3.1 The Basic Analysis of Covariance Design (Trochim, 1999)	111
3.2 Marking scheme for the open-ended and sentence construction items	125
3.3 Means and standard deviations of the Language Achievement scores according to teaching strategy	159
3.4 Means and standard deviations of the Writing Achievement according to teaching strategy	160
3.5 ANCOVA summary table of the Reading Comprehension Achievement	161
3.6 ANCOVA summary table of the Writing Achievement	162
3.7 Reliability coefficient and correlation coefficient for the Language Achievement assessment	173
3.8 Reliability coefficient and correlation coefficient for the Language Achievement assessment and lessons on reading comprehension and writing skills	174
4.1 Frequency distribution of respondents' English P.M.R. Results	176
4.2 Distribution of respondents' according to group and gender	178
4.3 Means and standard deviations for students' Language Achievement according to treatment groups and proficiency level	180
4.4 Two-Way ANCOVA Grid for H1, H2, and H3	183
4.5 A Two-Way ANCOVA summary table	184
4.6 Means and standard deviations for students' reading comprehension according to treatment groups and proficiency level	189
4.7 Two-Way ANCOVA Grid for H4, H5, and H6	191



4.8	A Two-Way ANCOVA summary table	192
4.9	Means and standard deviations for students' Writing Achievement according to treatment group and proficiency level	196
4.10	Two-Way ANCOVA Grid for H7, H8, and H9	198
4.11	A Two-Way ANCOVA summary table	199
4.12	Means and standard deviations for reading comprehension achievement according to group during treatment phase	204
4.13	Independent samples t-test for reading comprehension achievement according to group during treatment phase	204
4.14	Means and standard deviations for writing achievement according to group during treatment phase	207
4.15	Independent samples t-test for writing achievement according to group during treatment phase	207
4.16	Means and standard deviations for vocabulary achievement according to group during treatment phase	209
4.17	Independent samples t-test for vocabulary achievement according to group during treatment phase	210
4.18	Summary of means and standard deviations for dependent variables according to treatment groups	211
4.19	Frequencies of response based in students' perception on reading comprehension and writing skills	214
4.20	Frequencies of response to the visual imagery strategy questionnaire items	218
4.21	An Evaluation of students' essay-writing performance based on Tiedt's scoring guide	226



LIST OF FIGURES

Figure	Page
1.1 Dunkin and Biddle’s Model (1974) for the Study of Classroom Teaching	28
1.2 Researcher’s Conceptual Framework of the Study	108
4.1 Distribution of Language Achievement scores between treatment groups	179
4.2 Distribution of Language Achievement scores between treatment groups and proficiency levels	181
4.3 Profile Plot of the estimated marginal means of the Language Achievement	187
4.4 Distribution of reading comprehension achievement scores between teaching strategy groups	188
4.5 Distribution of reading comprehension achievement scores between teaching strategy groups and proficiency levels	190
4.6 Profile Plot of the estimated marginal means of the Reading Comprehension Achievement	194
4.7 Distribution of writing achievement scores between strategy groups	195
4.8 Distribution of writing achievement scores between treatment groups and proficiency level	197
4.9 Profile Plot of the estimated marginal means of the Writing Achievement	201



CHAPTER I

INTRODUCTION

1.1 Background of the Study

The English language is a world language and its importance in education, business, government and social situations continues to grow rapidly. Since Malaysia gained its independence over forty years ago, the era of colonialism witnessed English as the main medium of instruction and communication in government schools and private institutions. Today, English is taught as a second language based on the present Integrated Secondary School Curriculum. The English language syllabus for Forms Four and Five was first introduced by the Curriculum Development Center from the Ministry of Education in 1977.

In addition, the government had included vocational and technical schools and polytechnics where English was taught to enable students to function confidently and effectively in activities which were career related. The English language served as a tool for human resource development in Malaysia's quest to become a modern and progressive society. Hence, the teaching of English for specific purposes or ESP was designed to prepare students to communicate effectively in the tasks prescribed by their study or work situation.

1.1.1 The History of ESP

From the early 1960's, English for Specific Purposes (ESP) has grown to become one of the most prominent areas of English language teaching today. The ESP movement originated from general developments in the world economy in the 1950's and 1960's that included: the rapid growth of science and technology; the increased use of English as the international language of business, science, and technology; the increased economic power of certain oil-rich countries and the increased number of students pursuing their studies in the UK, USA, and Australia (Dudley-Evans and St. John, 1998).

ESP has had a relatively long time to mature but the understanding towards the meaning of ESP itself exhibited differences in interpretations. This is due to the various influences that came together to generate the need and enthusiasm for developing ESP as a discipline. Among the descriptions given on ESP is that it is simply the teaching of English for any purpose that could be specified. Others described it as the teaching of English used in academic studies or the teaching of English for vocational or professional purposes.

The meaning of ESP was clarified by Dudley-Evans & St. John (1998) by giving an extended definition of ESP in terms of 'absolute' and 'variable' characteristics. In terms of absolute characteristics:

1. ESP is defined to meet specific needs of the learners.
2. ESP makes use of underlying methodology and activities of the discipline it serves.
3. ESP is centered on the language appropriate to these activities in terms of grammar, lexis, register, study skills, discourse, and genre.

In terms of variable characteristics:

1. ESP may be related to or designed for specific disciplines.
2. ESP may use, in specific teaching situations, a different methodology from that of the General English.
3. ESP is likely to be designed for adult learners at the tertiary level of institution or in professional work situation, as well as for students at the secondary school level.
4. ESP is generally designed for intermediate or advanced students.
5. Most ESP courses assume some basic knowledge of the language system.

(Dudley-Evans & St. Johns, 1998, p.4-5)

From the definition, it is evident that ESP involves a specific discipline, but it does not necessarily have to be in that manner, nor does it have to be aimed at a certain age group or ability range. ESP should be seen simply as an 'approach' to teaching in which all decisions concerning content and teaching strategies are based on the students' needs or reasons for learning (Hutchinson & Waters, 1987, p. 19).



Throughout its history, ESP practitioners have been concerned with identifying what the student needs and the purpose of learning. In the early years, students' needs analysis was fairly simple with easy-to-follow procedures. However, recent needs assessments have grown increasingly complex and understanding the situation in which they will be using English is quite daunting. Munby's (1978) model for needs analysis was much discussed in the late 1970's and early 1980's. The model produced a detailed profile of the learners' needs in terms of communication purposes, communicative settings, and the means of communication, as well as language skills, functions, and structures. Hutchinson and Waters (1978) argued that ESP had concentrated too much on the needs analysis, giving little focus on the learning skills needed to enable students to reach the desired end behavior. Hence, ESP materials designers and practitioners continue to improve and expand their collection and analysis techniques.

Another important aspect in the history of ESP is discourse analysis, which in ESP refers to the examination of written or oral language. Throughout its history, ESP practitioners have been concerned with identifying the important features of the authentic or genuine language of the situations where students will use English as their medium of communication (Swales, 1988 and Widdowson, 1981). Three types of approaches, including the scientific passive approach, the communicative approach, and the text feature analysis approach were used to analyze genuine discourse which serves real purposes in specified contexts for the development of ESP materials.